



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,751	01/08/2002	Othon K. Rediniotis	T1	3571
7590 05/20/2005				
James W. Hiney, Esq. Suite 1100 1872 Pratt Drive Blacksburg, VA 24060				
		EXAMINER ELLINGTON, ALANDRA		
		ART UNIT 2855		
		PAPER NUMBER		

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8M

Office Action Summary	Application No. 10/040,751	Applicant(s) REDINIOTIS ET AL.	
	Examiner Alandra Ellington	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12-14 and 18-20 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☒ Claim(s) 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Non-Final Rejection

Election/Restrictions

1. Claims 12-14 and 18-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 2/18/05.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoeflinger (3,677,079).

a. With respect to Claim 15, Hoeflinger discloses a multi-hole probe for measuring flow velocity, said probe comprising a probe tip 23, holes 23b in said probe tip 23, a pressure sensor 22 located in said tip 23 in the immediate vicinity of said holes 23b and in communication with said holes 23b so that the sensor 22 produce an almost instantaneous reading of the pressure in said holes 23b from the flow (col. 2 lines 50-75, col. 3 lines 1-25). However, Hoeflinger does not specifically teach a plurality of pressure transducers. Hoeflinger teaches a probe 10 within another probe 15 wherein both contain pressure transducers 22 near the tip portion 23 in order to provide good dynamic response (col. 4 lines 17-73

{Figs. 6A-6D}). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hoeflinger to include a plurality of pressure sensors for the purpose of providing good dynamic response, acceptable steady state performance and to ensure a minimum frontal blockage area to flow (see Hoeflinger, col. 4 line 75, col. 5 lines 1-6).

b. With respect to Claim 16, Hoeflinger discloses a spherical tip 23 ({Fig. 5}).

Allowable Subject Matter

4. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: The reasons for the indication of allowable subject matter is based on the inclusion of a *MEMS sensor array* and the sensors including bossed diaphragm structures.

6. Claims 1-11 are allowed.

7. The following is an examiner's statement of reasons for allowance: The reasons for allowance are based on the inclusion of:

a. In Claim 1, a plurality of pressure transducers embedded in the holes near the tip, a plurality of sensor embedded in the tip adjacent the transducers, so as to give a quick response and high performance due to elimination of lag between the sensor reading and the transducer response.

Art Unit: 2855

b. In Claim 10, sensors mounted in the holes in the tip, a corresponding number of pressure transducers with a range of plus or minus 2 PSIG installed in the probe body, the transducers being plus or minus 2 inches from the sensors.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alandra Ellington whose telephone number is (571) 272-2178. The examiner can normally be reached on Monday - Friday, 7:30am - 4:00pm.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alandra Ellington
Art Unit 2855

ane



**MAX NOORI
PRIMARY EXAMINER**